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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/865,074	05/24/2001	Stephen Paul Zimmerman	8094M	6704

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EXAMINER

TRAN LIEN, THUY

ART UNIT

PAPER NUMBER

1761

DATE MAILED: 09/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/865,074

Applicant(s)

ZIMMERMAN ET AL.

Examiner

Lien T Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

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Upon further consideration, the indication of allowability of previous claims 18-20 is hereby withdrawn. The limitation from previous claims 18-20 is now incorporated into new claim 21. The new rejection is as followed.

Claims 21-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Willard (4623548) in view of Holm et al (4994295).

Willard discloses snack products made from corn and other cereal flours. The snack products are made from a dough comprising 15-80% low water absorption component, 3-40% high water absorption component and a moisture content of 40-50%. The low water absorption component can be partially gelatinized cereal flours such as masa flour and whole corn flour subjected to heat treatment to partially gelatinized the starch. The high water absorption component can be pregelatinized starch. (See columns 2-5)

Willard does not disclose the surface features in the percentage, amount and having the dimensions claimed in claims 24,26-30, the thickness and coefficient of variation of thickness as in claim 26, the total volume of solid as in claim 31, the void length of claim 32, the thickness of claim 33, the glass transition temperature of claim 25 and the viscosity of the pregelatinized starch as recited in claim 21.

Holm et al disclose snack products having a predetermined level of surface bubbling. The snack preferably has a combination of surface features as shown in figures 2-3 (see column 12, lines 1-20). The process can be adjusted to produce products ranging from those having very little bubbling to products which are totally pillowed. By adjusting the initial dough moisture, the thickness of the dough sheet and

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the drying environment, a chip product having any desired bubble size distribution can be created (see col. 11 lines 46-55). The snack has a thickness in the range of about .5mm to about 1.5mm (see col. 6 lines 9-10).

The glass transition temperature of the chip is inherent in the Willard product because the snack is made from a dough having the same components as claimed. The claimed dough requires 25-40% of a precooked starch-based material and 2.5-4% of a pregelatinized starch; 50% of 50-80% is 25-40% and .5% of 50-80% is 2.5-4%. These ranges fall within the ranges disclosed by Willard. While Willard does not disclose the percent of gelatinization of the pregelatinized starch, the degree of gelatinization of the pregelatinized starch can be from above 0-100% and by not disclosing the percent of gelatinization, the pregelatinized starch encompasses this range and the claims include the range of 50-100%. Since the snack is made from a dough containing the same components as claimed, the glass transition temperature is inherent because the specification does not disclose how the dough is processed or manipulated to arrive at the claimed glass transition temperature. The glass transition temperature is the result of the starch found in the dough and since the Willard dough comprises the same starch, the temperature claimed is obvious in the Willard product. With respect the viscosity of the pregelatinized starch, Willard teaches the use of pregelatinized starch. The viscosity of the starch relates to the degree of cook of the starch. By teaching pregelatinized starch, the degree of gelatinization can be from above 0-100%. It would have been within the skill of one in the art to have a degree of gelatinization which would give a viscosity that gives the most optimum working

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parameters with respect to dough manipulation. Optimization is within the skill of one in the art. Applicant has not established any criticality or unexpected result with respect to the claimed viscosity. The final product claimed is a snack chip and applicant has not shown that the viscosity leads to a different snack chip from the one disclosed by Willard. As to the water absorption index, Willard discloses the same starch and the degree of gelatinization encompasses the claimed range; thus, it is obvious the water absorption index of the starch can fall within the range claimed. In any event, it would have been obvious to one skilled in the art to use a starch having an WAI which would give the most optimum working parameters and properties. It would also have been obvious to one skilled in the art to use the teaching of Holm et al to adjust parameters such as initial dough moisture, thickness of the dough sheet and the drying environment to obtain a product having a bubbling and blistering surface to enhance the textural quality of the product. It would have been obvious to one skilled in the art to vary the parameters as set forth by Holm et al on column 11 lines 46-55 to obtain any distribution of bubbling and the size of the bubbles depending on the appearance and the texture desired. Holm et al disclose products with different sizes of bubbles are preferred. Since both the Holm et al and Willard products are in the field of fabricated snack products, the teaching of Holm et al is equally applicable to the Willard product. Applicant has not shown anything unexpected in the percent of surface features and dimensions claimed. As to the thickness and the coefficient of variation of the chip thickness, it would have been obvious to make the snack thicker or thinner depending on the texture desired; for instance, if a crunchier taste is desired, it would have been


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obvious to make the snack thinner or if a less crunchy taste is desired, it would have been obvious to make the snack thicker. It would also have been obvious to vary thickness depending on the size and distribution of bubbles as taught by Holm et al. If the thickness varies, then the coefficient of variation of the thickness will also vary. The bubble provides interior void and as stated above, it would have been obvious to vary the size of the bubble which consequently affects the size of the interior void. The distribution of the bubbles will also affect the volume occupied by solids and it would have been obvious to vary the distribution of the bubbles depending on the appearance and texture desired.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lien T Tran whose telephone number is 703-308-1868. The examiner can normally be reached on Wed-Fri. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

September 3, 2003


LIEN TRAN
PRIMARY EXAMINER
Group 1700